

- Contact expansion device for safty relays S² series
- 4 delayed enabling current paths
- 2 signaling current paths
- 1 check-back current path
- For applications up to safety category 4
- Stop category 0
- Width 22.5mm
- Industrial design



Technical data

1. Functions

Contact expansion device proper for all safety relays series S².
Maximum safety category depends on selected base unit and wiring.

2. Indicators

Green LED R1 ON/OFF: Safety channel 1 enabled
Green LED R2: ON/OFF Safety channel 2 enabled

3. Mechanical design

Self-extinguishing plastic housing, IP rating IP40
Mounted on DIN-Rail TS 35 according to EN 50022
Mounting position: any
Shockproof terminal connection according to VBG 4 (PZ1 required),
IP rating IP20
Tightening torque: 0.5 to 0.6Nm
Terminal capacity:
2 x 0.14 to 0.75mm² without multicore cable end
1 x 0.14 to 2.5mm² without multicore cable end
2 x 0.25 to 0.5mm² flexible with multicore cable ends
1 x 0.25 to 2.5mm² flexible with multicore cable ends

4. Input circuit

Supply voltage:
24V DC terminals A1-A2
Tolerance:
24V DC -15% to +10%
Rated frequency: 50 to 60Hz
Rated consumption:
24V DC 2.7VA (1.5W)
Duration of operation: 100%
Residual ripple: 2.4Vss

5. Output circuit

4 forced normally open contacts (enabling current paths)
2 forced normally closed contacts (signaling current paths)
1 forced normally open contact (check-back current path)
Rated voltage: 230V AC/DC
Rated current of enabling paths: max. 6A
Fusing: gG 6A (MCB 6 B or C)
Rated current of signaling contacts: max. 2A
Rated current of check-back contact: max. 0.1A
Total current of all paths: max. 12A
Mechanical life: 10 x 10⁶ operations
Switching capacity (according to IEC 947-5-1):
max. 60/min (AC-15: 6A/230V AC)
max. 60/min (DC-13: 3A/24V DC)
max. 6/min (DC-13: 6A/24V DC)
Insulation voltage: 300V AC (according to IEC 664-1)
Surge voltage: 4kV, overvoltage category III
(according to IEC 664-1)
Response time t_A R1, R2: 20ms
Reset time t_R R1, R2: 40ms

6. Safety circuit

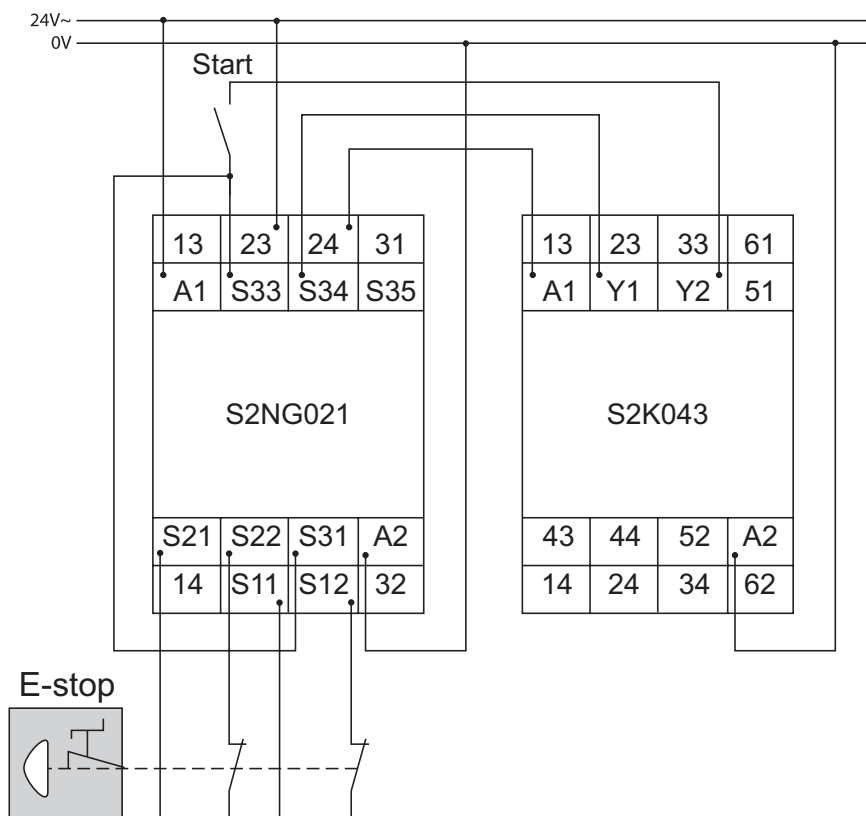
Function: connection to base unit
Connection: A1 and A2 via enabling path of
base unit to power supply
resp. GND
Safety channel 1: A1-24V AC/DC
Safety channel 2: A2-GND
(for safety category 4)
Cross monitoring: -
Galvanic separation to power supply: No

7. Ambient conditions

Ambient temperature: -25 to +55°C
(according to IEC 68-1)
Storage temperature: -25 to +70°C
Transport temperature: -25 to +70°C
Relative Humidity: 83% (bei 23°C),
93% (bei 40°C) nach DIN 50016
3 outside, 2 inside
(according to IEC 664-1)
Pollution degree:

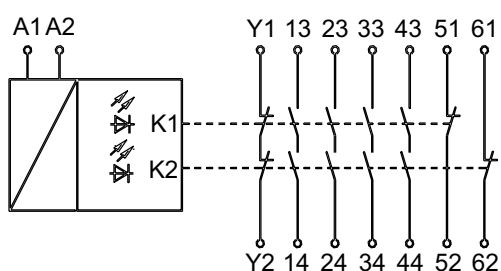
Connections

S2K043 connected to S2NG021



Dimensions

internal circuitry



Subject to alterations and errors